

ay



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
 United States Patent and Trademark Office  
 Address: COMMISSIONER FOR PATENTS  
 P.O. Box 1450  
 Alexandria, Virginia 22313-1450  
 www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/670,463

09/26/2003

Yong Cheol Park

0465-1027P

7401

2292

7590

11/02/2005

BIRCH STEWART KOLASCH & BIRCH

PO BOX 747

FALLS CHURCH, VA 22040-0747

EXAMINER

HUBER, PAUL W

ART UNIT

PAPER NUMBER

2653

DATE MAILED: 11/02/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 10/670,463	Applicant(s) PARK ET AL.	
	Examiner Paul Huber	Art Unit 2653	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 20 May 2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-42 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-42 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

Y

Art Unit: 2653

Applicant's election with traverse of Group I, claims 1-20, in the reply filed on May 20, 2005 is acknowledged. The applicant's arguments were found persuasive and the restriction requirement of the last office action was withdrawn. All claims as originally filed were examined.

The specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-16, 18, 20-36, 38 and 40-42 are rejected under 35 U.S.C. 102(b) as being anticipated by Fukushima et al. (USP-5,111,444).

Regarding claims 1, 10-12, 14, 15, 21, 30-32, 34, 35 & 41, Fukushima et al. discloses a method for managing a defective area on a recording medium of writable once type. See figures 1, 9 & 11. See also, col. 19, line 52 through col. 20, line 16 which teaches that the recording medium is of a writable once type. Fukushima et al. teaches the method comprising: detecting an existence of a defective area within a data area of the recording medium once data are written onto the data area in a data writing operation (see figure 9; step R); writing data written in the defective area onto another spare area of the data area if the defective area is detected (step S); and writing, onto at least one defect management area on the recording medium, defect management information associated with the defective area (step V).

Regarding claim 2 & 22, Fukushima et al. discloses writing clusters of data onto a first recording area of the data area during a first data writing operation (step Q), each cluster of data (i.e., each sector of data) being written to one of a plurality of cluster areas (sectors) of the first recording area. In step R (detecting step), for each of the cluster areas (sectors), data written therein is examined and it is determined whether the corresponding cluster area (sector) is defective based on the examination result.

Art Unit: 2653

Regarding claim 3 & 23, Fukushima et al. discloses that in step S (writing step), data written on a corresponding cluster area (sector) of the first recording area, is written onto another cluster area (alternative sector), if the determining step determines that the corresponding cluster area (sector) is defective.

Regarding claims 4-6 & 24-26, Fukushima et al. discloses that in step V (writing defect management information step), defect management information associated with all the defective cluster areas (sectors) of the first recording area are written onto the at least one defect management area on the recording medium. The defect management information includes a plurality of defect lists (primary and secondary) as claimed. See also figure 1.

Regarding claims 7, 8, 27 & 28, the recording medium includes a spare area as claimed. See figure 1.

Regarding claim 9, 13, 29 & 33, each of the defect lists contains a present defect list and any previous defect list, such that each of the defect lists becomes a cumulative defect list. See col. 7, lines 56-67.

Regarding claim 16 & 36, Fukushima et al. discloses writing disc definition structure information (volume control information) onto a lead-in area of the recording medium as claimed. See figures 1, 2 and 11, and col. 19, line 52 through col. 20, line 16.

Regarding claims 18, 20, 38, 40 & 42, Fukushima et al. discloses writing onto a lead-in area (lead-in area of Partition a and lead-in area of Partition b) defect list information associated with the defective area, as claimed. See figure 1.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 17, 19, 37 and 39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fukushima et al., as applied to the claims above, in further view of Brommer et al. (USP-6,826,140).


Art Unit: 2653

Fukushima et al. discloses the invention as claimed, but fails to specifically teach that the write-once optical disk is a Blu-ray type disk. However, Brommer et al. discloses that it is manifestly well known in the art that Blu-ray disks exist and are "capable of providing storage capacities of up to 27 GB and 50 GB on single-layer and dual-layer discs respectively. The driving force behind such huge capacities is the emergence of multimedia applications in relation to both high-quality digital video and audio into the PC mainstream, coupled with the emergence of high-definition TV (HDTV), which is debuting in terrestrial broadcast systems" (col. 8, lines 23-35).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Fukushima et al. such that the write-once optical disk used therein is a Blu-ray type disk, as manifestly well known in the art as shown by Brommer et al. A practitioner in the art would have been motivated to do this for the purpose of increasing the storage capacity of the optical disk for use in recording and reproducing high-quality digital video and audio, such as HDTV signals.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Kamihara et al. and Shin each disclose a method for managing defective areas on a recording medium.

Any inquiry concerning this communication should be directed to Paul Huber at telephone number 571-272-7588.



Paul Huber  
Primary Examiner  
Art Unit 2653

pwh  
October 28, 2005